Remarks

Claims 1 and 17 have been amended. Claims 1-2, 4-7, 9 and 12-17 are pending in the application. Reconsideration of the rejections and objections at an early date is requested.

Claims 1-2, 4-7, 9 and 12-16 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claim 1 has been amended in response to this rejection. It is submitted that the claim amendment herein overcomes these rejections.

Claim 17 was rejected for being dependent on a canceled claim. Claim 17 has been amended to correct this error.

Claims 1, 2, 4 and 12 were rejected under 35 U.S.C. 103(a) and being unpatentable over Mauk (U.S. Patent No. 5,828,088) in view of Wenham et al. (U.S. Patent No. 4,748,130) and further in view of Epstein (U.S. Patent No. 3,664,874).

We believe that the features of claim 1 are not known from these documents. The Examiner asserts on page 5, that the volume ratio of the front and back conductors to the photon absorber is in the range of 2 to 7 in the Wenham reference. A closer look into this document shows that this is not the case. Column 3, lines 57-60, teaches that the groove width is in the range between 25 μm and 100 μm. Further, column 4, lines 1-3, describes that finger spacing should preferably be in the range of 1.5-2.5 mm (the unit μm is wrong, since the groove width Wg is already 100 μm and therefore the finger spacing must be bigger than the groove width). According to the described embodiment in column 4, lines 7 ff., a finger spacing of 1.5 mm, a finger width of 45-50 μm and a finger depth of 100-150 μm is utilized. If we assume that the finger width is 50 μm, this leads to a volume ratio of

$1.8/.05 = 36$

This is not in the range of 2-7 as described in claim 1 of the invention. Even if we assume that the groove width Wg is 100 μm, as described in column 3, line 60, and finger spacing is 1.5 mm as described in column 4, line 2, the volume ratio would be 15, which, again, is far away from a volume ratio of 2 to 7 according to the invention.

Please note that this calculation is based on the assumption that the thickness of the substrate is only 0.15 mm (namely the maximum finger depth) which of course is not the case. Therefore, a greater thickness of the substrate would lead to a volume ratio which is even bigger than 15 or 36. For instance, column 3, line 48, describes that a thick substrate can have a thickness of 600 μm.

For example, if we assume that the finger width is 50 μm, the finger depth is 105 μm, the finger spacing is 1,800 μm and the thickness of the substrate is 600 μm, this would lead to a volume ratio 143. In another example, if we assume that the finger depth shall be smaller than half of the thickness of the substrate due to reasons of mechanical stability, this would lead to a thickness of 300 μm if we assume that the finger depth shall be 150 μm. Thus, the result would be a volume ratio of 71, which also is far away from the volume ratio of 2 to 7 according to the invention stated in claim 1.

Therefore, the combination of the above mentioned references does not lead to the features of claim 1 of the invention. Since the remaining claims are all dependent, either directly or indirectly, on claim 1, all of the pending claims are allowable.

A Credit Card Payment is being submitted via EFS-Web authorizing payment in the amount of $65.00, representing the fee for a small entity under 37 C.F.R. § 1.17(a)(1) for a one-month extension, and a Request for Extension of Time. This amount is believed to be correct, however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

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